

CLAIMS

What is claimed is:

- 1 1. A web site integrity detection system for detecting changes in the content of one or
2 more web pages within a web site on a web server, comprising:
 - 3 a web detection manager;
 - 4 a web detection agent; and
 - 5 a web detection console,
 - 6 wherein the web detection console configures the web detection manager to monitor the
 - 7 web site, the web detection manager requests web site information about the one or more
 - 8 web pages from the web detection agent and processes the web site information to determine
 - 9 whether the content of the one or more web pages has been altered, and the web detection
 - 10 agent provides the web detection manager with the web site information by encoding the
 - 11 content of the one or more web pages of the web site and transmitting the encoded content to
 - 12 the web detection manager.

- 1 2. The system of claim 1, wherein the one or more web pages are chosen by
2 selecting one or more uniform resource locators associated with the one or more web pages,
3 the one or more uniform resource locators chosen from a list of uniform resource locators
4 associated with the web site.

- 1 3. The system of claim 2, wherein the list of uniform resource locators is generated
2 by:

- 3 (1) traversing the home page of the web site to be monitored by the web site integrity
4 detection system for uniform resource locators;
5 (2) storing the uniform resource locators;
6 (3) for the uniform resource locators that address additional web pages contained within
7 the web site, traversing the additional web pages for any additional uniform resource
8 locators; and
9 (4) repeating steps (2) and (3) until all uniform resource locators that address additional
10 web pages within the web site have been traversed.

1 4. The system of claim 1, wherein the web detection console allows a web site
2 administrator to:
3 specify the web site to be monitored; and
4 at least one of
5 specify at least one point of contact that will be contacted if the web detection manager
6 determines that the content of the one or more web pages of the web site has been altered,
7 set the frequency that the web detection manager requests the web site information, and
8 specify the one or more web pages by selecting their corresponding uniform resource
9 locators from a list of uniform resource locators associated with the web site.

1 5. The system of claim 1,
2 wherein the web detection manager is a software application that resides on a first
3 computer at a first location;
4 wherein the web detection agent is a software application that resides on a second
5 computer at a second location; and

6 wherein the first location is in communication with the second location over an open
7 network.

1 6. The system of claim 1, wherein the encoded content comprises at least one calculated
2 hash value.

1 7. The system of claim 1, wherein the web site information transmitted by the web
2 detection agent is encrypted.

1 8. The system of claim 1, wherein the web detection agent authenticates the request for
2 the web site information.

1 9. The system of claim 1, wherein the web detection manager authenticates a response to
2 the request for the web site information.

1 10. The system of claim 1, wherein the web detection console configures the web
2 detection manager to contact at least one point of contact if the web detection manager
3 determines that the content of at least one web page of the one or more web pages has been
4 altered.

1 11. The system of claim 10, wherein the one or more web pages is associated with one or
2 more uniform resource locators, wherein the at least one web page is associated with at least one
3 uniform resource locator, wherein each point of contact of the at least one point of contact is
4 associated with a uniform resource locator of the at least one uniform resource locator, wherein
5 the at least one point of contact is configured as a web site administrator or a content manager,
6 and wherein the web site administrator has authority to add a new content manager and specify
7 the uniform resource locator of the one or more uniform resource locators to be associated with
8 the new content manager.

1 12. A method for protecting the data integrity of one or more web pages within a web site,
2 comprising the steps of:
3 requesting web site information from a web detection agent;
4 receiving the web site information transmitted by the web detection agent, wherein the
5 web detection agent generates the web site information by encoding the content of the one or
6 more web pages;
7 comparing the web site information to stored, baseline web site information; and
8 notifying at least one point of contact if the web site information differs from the stored,
9 baseline web site information

13. The method of claim 12, wherein the encoded content comprises at least one
calculated hash value.

14. The method of claim 12, wherein the web site information transmitted by the web
detection agent is encrypted.

15. The method of claim 12, wherein the web detection agent authenticates the request
for the web site information.

16. The method of claim 12, wherein the web detection manager authenticates a response
to the request for the web site information.

17. A method for protecting web site data, comprising the steps of:

running a web detection console program, wherein running the web detection console

program comprises

specifying a web site to monitor,

specifying one or more web pages within the web site to monitor,

6 specifying the frequency with which the web site will be monitored,
7 specifying at least one person to be contacted if a change in at least one web page of
8 the one or more web pages is detected, and
9 specifying a communication means for contacting the at least one person;
10 running the web detection manager program installed on a first computer, wherein
11 running the web detection manager program comprises requesting web site information from
12 a web detection agent program and processing the web site information to determine whether
13 the content of the one or more web pages has been changed; and
14 running the web detection agent program installed on a second computer, wherein the
15 first computer is in communication with the second computer over a network, wherein
16 running the web detection agent program comprises transmitting the web site information to
17 the web detection manager program, and wherein the web site information comprises the
18 encoded content of the one or more web pages.

18. The method of claim 17, wherein the communication means comprises a two-way communication system that allows the at least one person to interact with the web detection manager.

19. The method of claim 17, wherein the web detection manager has determined that the content of the one or more web pages has changed, wherein the web detection manager contacts the at least one person using the communication means, wherein the communication means is a two-way communication system, wherein the web detection manager provides the at least one person via the two-way communication system an option

6 to accept the change to the at least one web page or to restore an unaltered version of the at
7 least one web page.

1 20. A web site integrity detection system, comprising:
2 a plurality of web servers;
3 a web site on each of the plurality of web servers;
4 one or more web pages within the web site;
5 a load balancer for distributing processing and communication activity across the plurality of
6 web servers;
7 a web detection manager;
8 a web detection agent; and
9 a web detection console,
10 wherein the web detection console configures the web detection manager to monitor the web
11 site, the web detection manager requests web site information about the one or more web
12 pages from the web detection agent and processes the web site information to determine
13 whether the content of the one or more web pages has been altered, and the web detection
14 agent provides the web detection manager with the web site information by encoding the
15 content of the one or more web pages of the web site and transmitting the encoded content to
16 the web detection manager.

1 21. The system of claim 20, wherein the web detection manager determines that
2 the content of the one or more web pages has been altered, wherein the web detection
3 manager interacts with the load balancer to disable a web server of the plurality of web
4 servers, and wherein the web server comprises the one or more altered web pages.